

PROTEIN TYROSINE PHOSPHATASE-1B (PTP-1B) DEFICIENT MICE AND ASSAYS FOR PTP-1B MODULATORS

The present invention provides mice that have had their PTP-1B genes disrupted by targeted homologous recombination. The mice have no detectable PTP-1B protein, yet appear to be physiologically normal. However, in the fed state on a normal diet, the mice have half the level of circulating insulin as their wild-type littermates. In glucose and insulin tolerance tests, the mice show an increased insulin sensitivity. When fed a high fat, high carbohydrate diet, the mice show a resistance to weight gain as compared to their wild-type littermates.

15 The present invention also provides methods of identifying inhibitors of the enzymatic activity of PTP-1B as well as inhibitors identified by such methods.